

TWO NEW SPECIES AND THREE NEW RECORDS OF *CAMPYLOCHETA* FROM CHINA (DIPTERA, TACHINIDAE)

ZHANG Chun-Tian*, ZHOU Yuan-Ye

Liaoning Key Laboratory of Evolution and Biodiversity, Shenyang Normal University, Shenyang 110034, China

Abstract The genus *Campylocheta* Rondani (Diptera, Tachinidae) of China was studied. Two new species, *C. maculosa* sp. nov. from Liaoning and *C. latifrons* sp. nov. from Ningxia, China are described, and *C. abdominalis* Shima, *C. bisetosa* Shima and *C. hirticeps* Shima are recognized as new records in China. A key to 8 Chinese species of *Campylocheta* is provided. The type specimens and other examined specimens are deposited in the Insect Collection, Shenyang Normal University (SNU).

Key words Tachinidae, *Campylocheta*, new species, new record, China.

1 Introduction

Campylocheta Rondani is a genus of the tribe Campylochetini of Dexiinae (Diptera, Tachinidae) and is distributed in the world except New Zealand (O'Hara, 2010). Herting and Dely-Draskovits (1993) recorded 8 Palearctic species of *Campylocheta*. Dear and Crosskey (1982) reported 6 Philippine species. Shima (1985, 1988) reported 9 Japanese species and 1 species from Taiwan, China of this genus. Richter (2004) provided a key of 7 *Campylocheta* species of Russian Far East. Chao et al. (1998) and O'Hara, Shima and Zhang (2009) separately recorded 2 and 3 Chinese species of *Campylocheta*. In the study of Chinese species of *Campylocheta*, we found two new species from Liaoning and Ningxia and three new record from Liaoning.

The generic definition of *Campylocheta* here follows as Mesnil (1974), Shima (1985), Tschorasnig and Richter (1998) by the combination of characters. Eye densely with yellowish long hairs, reclinate ocellar seta, facial ridge with strong setae on basal 2/3 or more, proepisternum hairy, prosternum bare. Terms mainly follow McAlpine (1981), but that of the male terminalia follows Sinclair (2000).

Campylocheta species are ovoviparous and parasitic on lepidopterous epidopterous larvae of Noctuidae and Geometridae (Herting, 1960; Mesnil, 1974; Arnaud, 1978; Shima, 1999). The hosts of Chinese species were unknown, but *C. abdominalis* Shima were collected around larvae of *Antheraea pernyi* Guérin-Meneville in Liaoning Institute of Sericulture Science, Sitaizi, Fengcheng, Liaoning, China.

2 Taxonomy

2.1 *Campylocheta* Rondani

Campylocheta Rondani, 1859: 157, 169 (also subsequently spelled *Campylochaeta*, unjustified emendation). Type species: *Tachina praecox* Meigen, 1824, by fixation of O'Hara & Wood (2004: 18) under Article 70.3.2 of ICBN (1999), misidentified as *Tachina schistacea* Meigen, 1824 in the original designation by Rondani (1859). Mesnil 1974: 1250 (Palearctic); Dear & Crosskey, 1982: 120 (review); Herting 1984: 148 (catalogue); Shima 1985: 105 (Japanese *Campylocheta*); Herting & Dely-Draskovits 1993: 374 (catalogue); Tschorasnig & Herting 1994: 82 (key); Ziegler, 1996: 311 (note); Ziegler & Shima, 1996: 430 (note); Chao et al., 1998: 2120 (note); Tschorasnig & Richter, 1998: 755, 791 (key); Richter, 2004: 358 (key); O'Hara, Shima & Zhang, 2009: 27 (catalogue).

Eipe Robineau-Desvoidy, 1863: 488. Crosskey, 1976: 187 (catalogue).

Gaedartia Robineau-Desvoidy, 1863: 565.

Hypochaeta Brauer et Bergenstamm, 1889: 93.

Goedartia Bezzii et Stein, 1907: 318.

Frivaldzkia: Stein, 1924: 104.

Euhypochactopsis Townsend, 1928: 394.

Generic diagnosis. Eye densely with yellowish long hairs; facial ridge with strong setae on basal 2/3 or more; lower margin of face not protruding forward in lateral view; ocellar seta developed, usually reclinate; 2 postocellar setae; 1st flagellomere more than 3 times as long as pedicel; arista bare, 2nd aristomere less than twice as long as wide, 3rd aristomere thickened at basal 1/5–1/2; palpi yellow to brown; proepisternum densely with yellowish white hairs; prosternum bare; 4 notopleural setae, 3 of basal setae in a straight line; 2–3 presutural and 2–3 postsutural acrostichal setae; 3 presutural and 3 postsutural dorsocentral setae; anepimeron without seta or with hair-like setae; scutellum with 3 pairs of

The study was partly supported by the National Natural Science Foundation of China (30870331, 31093430), the Collegial Science Foundation of Education Office of Liaoning Province (20085213) and the Research Foundation of the Experiment Centre of Shenyang Normal University (SY200801).

* Corresponding author, E-mail: chuantianzhang@yahoo.cn

Received 1 Dec. 2010, accepted 1 Mar. 2011.

marginal setae, apical scutellar setae strong and crossed; tegula black; basicosta reddish yellow or brown; vein r_1 usually bare, vein r_{4+5} hairy only on base, vein M at bending without or with a short appendix; hind tibia with 1 preapical anteroventral seta, distinctly longer than preapical posteroventral seta; abdominal syntergite 1 + 2 without median marginal setae

2.2 Key to Chinese species of *Campylocheta* Rondani

1. Body length 8.0 mm, frons of male about 0.23 of head width; 3 presutural and 2 postsutural acrostichal setae; tibiae reddish yellow, mid tibia with 1 anterodorsal seta, abdominal tergite 3 without median discal setae *C. malaisei* (Mesnil)
- Body length 4–6 mm, small; abdominal tergite 3 usually with median discal setae 2
2. Male with 2 proclinate orbital setae; frons 0.39–0.42 of head width *C. mangicanda* Shima
Male without proclinate orbital seta 3
3. Two katepisternal setae; mediotergite bare; mid tibia with 1 strong and 1 fine anterodorsal setae; posteroanterior seta of 3 preapical dorsal setae of hind tibia at most 1/2 as long as others *C. abdominalis* Shima
Three katepisternal setae; mediotergite hairy or bare; mid tibia with 1–3 strong anterodorsal setae; hind tibia with 2–3 strong and subequally long preapical dorsal setae 4
4. Hind tibia with 2 preapical dorsal setae; tibiae reddish yellow; wing distinctly tinged with brown along crossveins r_m and m_cu ; abdominal syntergite 1+2 mid-dorsally excavate to posterior margin *C. biseptosa* Shima
Hind tibia with 3 preapical dorsal setae; wing distinctly tinged with or not brown along crossveins r_m and m_cu 5
5. Parafacial hairy on upper 1/3–1/2; abdominal syntergite 1+2 mid-dorsally excavate at most to posterior 1/4; wing not tinged with brown along crossveins r_m and m_cu ; mid tibia with 2 anterodorsal setae *C. hirticeps* Shima
Parafacial bare; abdominal syntergite 1+2 mid-dorsally excavate to posterior margin or nearly so; mid tibia with 1 or 2–4 anterodorsal setae 6
6. Frons of male about 0.29–0.32 of head width; 1st flagellomere 5.5–7.0 times as long as pedicel; 2 presutural acrostichal setae; 1 presutural intra-alar seta; mid tibia with 2–4 anterodorsal setae; wing tinged with brown along crossveins r_m and m_cu *C. fuscinervis* (Stein)
Frons of male about 0.3–0.4 of head width; 1st flagellomere about 7 times as long as pedicel; presutural intra-alar seta absent 7
7. Frons of male about 0.3 of head width; body with gray pruinosity; 2 presutural acrostichal setae; wing distinctly tinged with brown along crossveins r_m and m_cu ; mid tibia with 1 anterodorsal seta *C. maculosa* sp. nov.
Frons of male 0.38–0.40 of head width; body with yellowish gray pruinosity; 3 presutural acrostichal setae; wing not tinged with brown along crossveins r_m and m_cu ; mid tibia with 2–3 anterodorsal setae *C. latifrons* sp. nov.

2.3 Notes on Chinese species

2.3.1 *Campylocheta latifrons* sp. nov. (Figs 1–7)

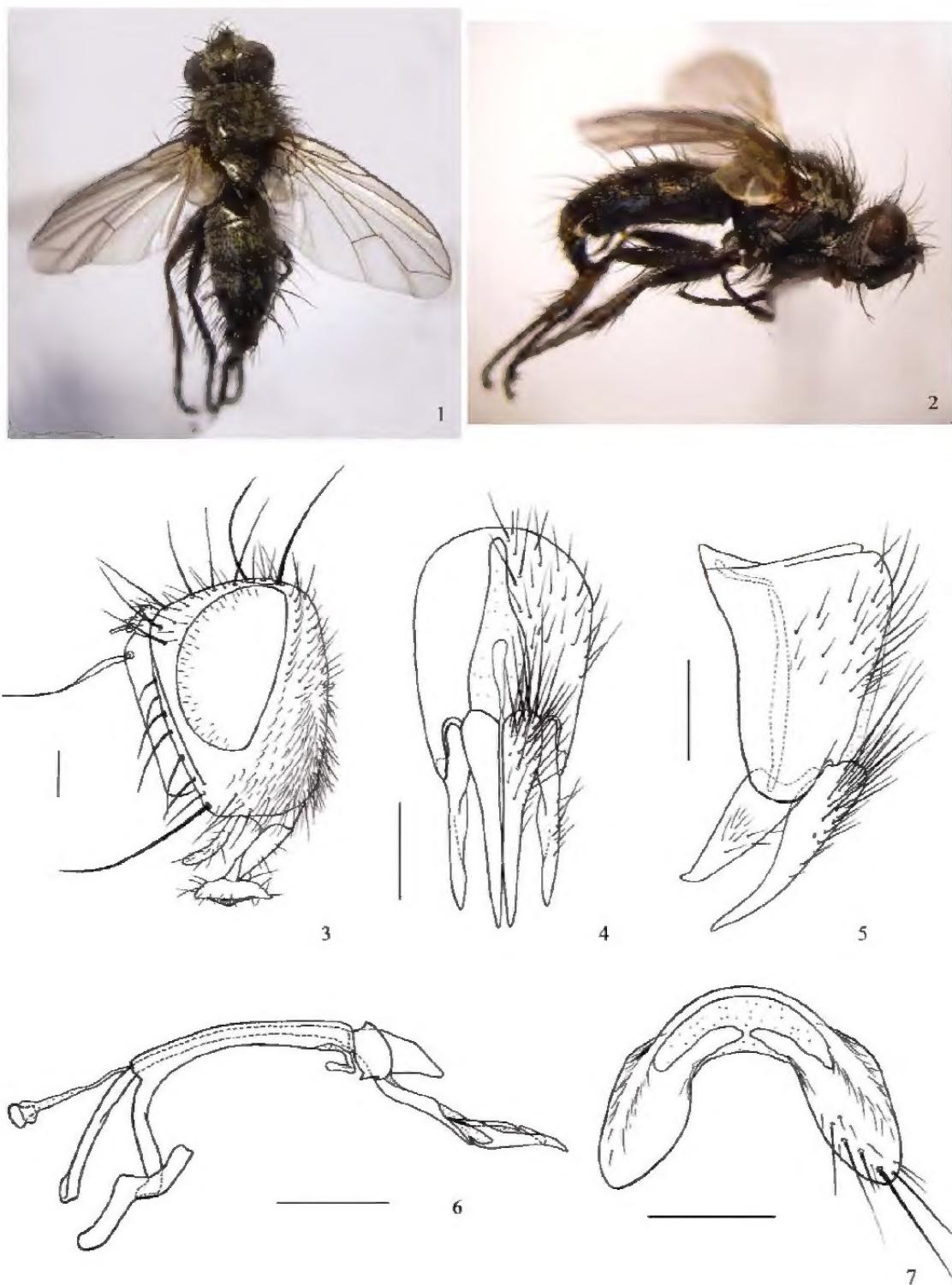
Diagnosis. Frons 0.38–0.40 of head width; thorax with yellowish gray pruinosity; mid tibia with 2–3 anterodorsal setae; abdominal syntergite 1+2 mid-dorsally excavate to posterior margin or nearly so.

Description. Body length 5.0–5.5 mm.

Male. Head with gray pruinosity on parafacial, face and gena; fronto-orbital plate and brownish black

frontal vitta covered with yellowish gray pruinosity; lunule dark brown. Antenna reddish brownish black, covered with gray pruinosity. Palpus reddish yellow. Frons 0.38–0.40 of head width, fronto-orbital plate with 2 rows of black hairs on outside of frontal setae; parafacial bare, 0.4–0.5 times as wide as 1st flagellomere in lateral view; facial ridge with strong setae on lower 3/4 or more; face concave; gena 0.43–0.46 times as wide as eye height, lower margin of face not protruding forward; occiput with 3 rows of black hairs below strong postocular seta row; lower occiput bulged. Inner vertical seta slightly longer than eye height, 1.3–1.5 times as long as ocellar seta, outer vertical seta slender, same as slender and strong postocular seta; 5–6 inclinate frontal setae, lowest seta nearly level with apex of pedicel, upper one shorter than ocellar seta; ocellar seta reclinate or laterocliniate, situate behind anterior ocellus; postocellar seta as long as postocular seta; vibrissa strong, inserted at lower margin of face; genal setae indistinct. Antenna broad, falling short of lower margin of face about length of pedicel, 1st flagellomere about 3.5 times as long as wide, about 7 times as long as pedicel; arista about as long as antenna. Palpus 0.6–0.7 times as long as 1st flagellomere; prementum broad, about twice as long as wide; proboscis large.

Thorax black in ground color, with yellowish gray pruinosity and 4 brown-black longitudinal vittae on presutural and postsutural dorsum, scutellum and pleura black, with yellowish gray pruinosity. 3 presutural and 2 postsutural acrostichal setae; 3 postsutural intra-alar setae; 3 supra-alar setae, anterior one fine ad short; 3 katepisternal setae; anepimeron without setae; ketepimeron bare and mediotergite with some black hairs below lower calypter; scutellum with 3 pairs of strong marginal setae and 1 fine seta between apical and subapical scutellar setae. Wing brownish, hyaline, not tinged with brown along crossveins r_m and m_cu ; costal spine slightly longer than crossvein r_m ; relative lengths of 2nd, 3rd and 4th costal sectors approximately 2:6:3; vein M from dm_cu crossvein to its bend about 2.0 times distance between bend and wing margin, bending without appendix. Halter reddish yellow. Calypters yellowish, lower calypter broad, its inner margin adjacent to scutellum. Legs. Femora and tarsi dark brown, tibiae reddish yellow except for darkened base; claws and pulvilli about as long as 5th tarsomere; fore tibia with a row of anterodorsal and 2 posterior setae; mid femur with a row of posteroventral setae on basal half and a complete row of anteroventral setae and 1–2 anterior seta on middle; mid tibia with 2–3 anterodorsal, 2 posterodorsal and 1 ventral setae; hind tibia with a row of irregular anterodorsal setae, 3–4 posterodorsal and 3–5 ventral setae, 3 strong and subequally long



Figs 1 – 7. *Campylocheta latifrons* sp. nov., ♂. 1 – 2. Male in dorsal and lateral view. 3. Head in lateral view. 4 – 5. Epandrium, cerci and surstyli in dorsal and lateral views. 6. Aedeagal apodeme, ejaculatory apodeme, hypandrium, pregonite, postgonite, basiphallus, distiphallus in lateral view. 7. Sternite 5. Scale bars = 0.25 mm.

preapical dorsal setae.

Abdomen long ovate, black, covered with yellowish gray pruinosity on anterior 4/5 of tergites and dark brown on posterior margins of tergites, with a narrow black median longitudinal vitta on dorsum.

Abdominal syntergite 1 + 2 mid-dorsally excavate to posterior margin or nearly so, with 1 laterodiscal, 2 lateral marginal setae; tergite 3 with 1 pair of median discal and median marginal, 1 lateral discal and 2 lateral marginal setae; tergite 4 with 1 pairs of median

discal, 1 lateral discal and a row of marginal setae; tergite 5 separately with a row of discal and marginal setae. Male terminalia. Sternite 5 reduced, wide and short, middle part distinctly protruding dorsally. Epandrium large and high; cerci slender, pointed and separated apically, surstyli slender and narrowed apically in posterior view; cerci narrow and bent ventrally, surstyli wide and narrowed apically in lateral view; basiphallus with broad dorsal process, angulated with distiphallus; distiphallus long, divided into subequal basal and apical portions by membrane; aedeagal apodeme elongate; hypandrium short, its dorsal arm broadly separated; pregonite plates fused dorsally with each other forming a long plate, its apex with a hook-like protruding ventrally; postgonite short and bent laterally, slightly longer than wide, with 2 hooks apically.

Female. Frons about 1/3 of head width, gena 0.33 – 0.43 times as wide as eye height, facial ridge with strong setae on lower 2/3, 2 proclinate strong orbital setae outside of 5 inclinate frontal setae. Antenna falling short of lower margin of face about length of pedicel, 1st flagellomere 3.0 – 3.5 times as long as wide, about 3.5 – 4.0 times as long as pedicel; palpus brown to dark on base, and reddish yellow on apical half, about 0.70 – 0.75 as long as 1st flagellomere. Mediotergite bare. Claws and pulvilli shorter than flattened 5th tarsomere. Mid tibia with 3 – 4 anterodorsal setae. Other characters same as in male.

Holotype male, China, Heshangpu Forest Center, 2 100 – 2 300 m, Mt. Liupan (35.4° N, 106.2° E), Jingyuan, Ningxia Hui Autonomous Region, 23 June 2008, LIU Jia-Yu (SNU). Paratypes: 4 females, same locality as holotype, 24 June 2008, LIU Jia-Yu, YAO Zhi-Yuan; 1 male, Qiuqianji Forest Center, 1 800 m, Mt. Liupan, Jingyuan, Ningxia, 4 July 2008, LIU Jia-Yu; 3 females, Hongxia Forest Center, 2 100 m, Mt. Liupan, Jingyuan, Ningxia, 14 July 2008, LIU Jia-Yu (SNU).

Etymology. The specific epithet refers to a character of this species, wide frons, “*latus*” and “frons” from Latin.

Distribution. China (Ningxia).

Remarks. This species is similar to *C. grisea* Shima, but differs from the latter in having wider frons, 5 – 6 frontal setae 1.3 – 1.5 times as long as ocellar seta, thorax with yellowish gray pruinosity and 4 brown-black longitudinal vittae, 3 presutural acrostichal setae, abdominal syntergite 1 + 2 excavate to posterior margin or so.

2.3.2 *Camptyocheata maculosa* sp. nov. (Figs 8 – 14)

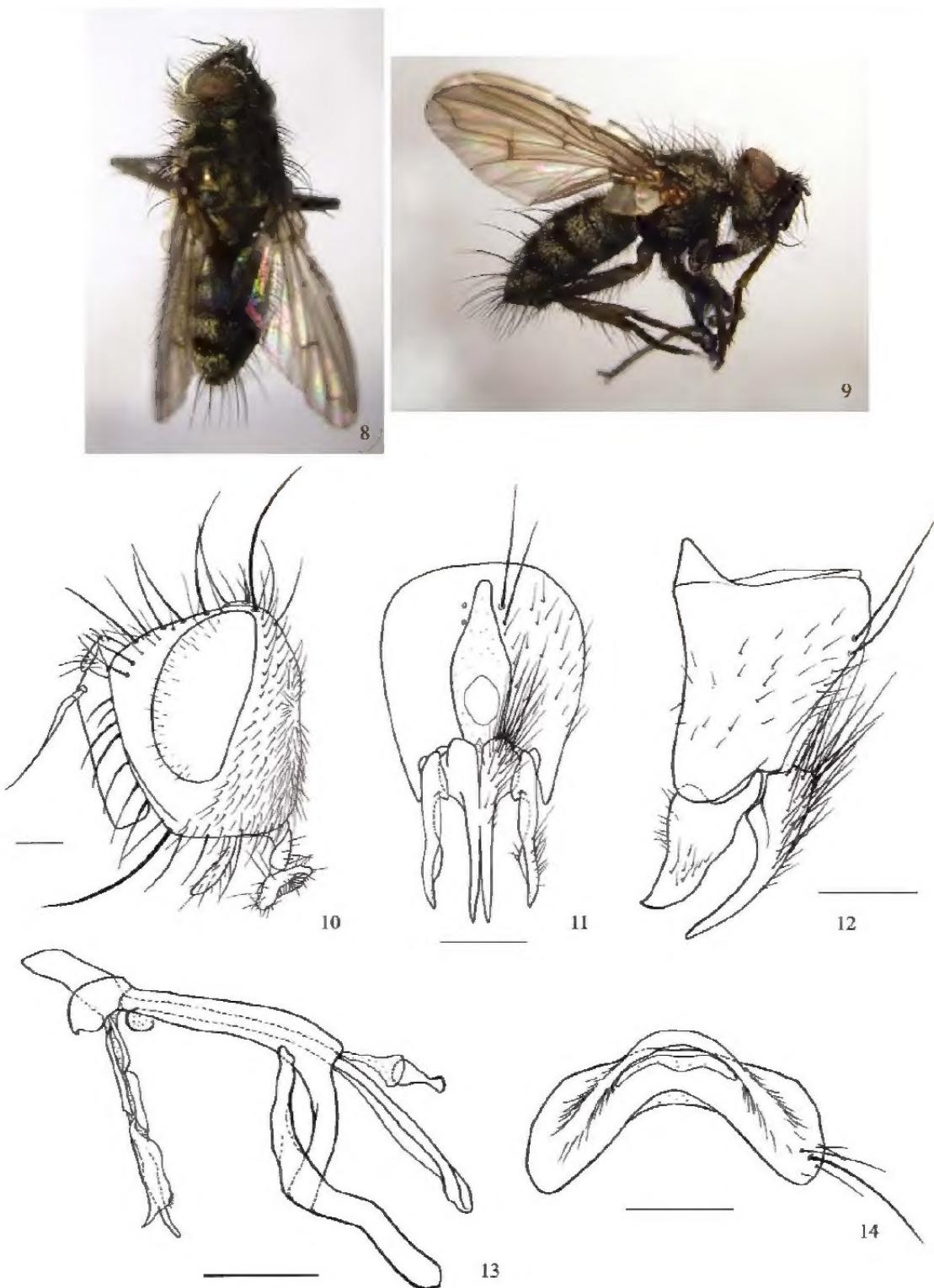
Diagnosis. 1st flagellomere about 7 times as long

as pedicel, 2 presutural and 2 postsutural acrostichal setae; 3 katepisternal setae; wing tinged with brown along crossveins r-m and m-cu; mid tibia with 1 anterodorsal seta, hind tibia with 3 preapical dorsal setae; abdominal tergites 3 and 4 each with 1 distinct lateral discal seta.

Description. Body length 4.5 – 5.5 mm.

Male. Head with grayish white pruinosity on fronto-orbital plate, parafacial, face and gena; frontal vitta brownish black, covered with gray pruinosity in frontal view; lunule dark brown. Antenna reddish brownish black, covered with gray pruinosity; palpus reddish yellow. Frons about 0.3 of head width, frontal vitta 4 times as wide as fronto-orbital plate at narrowest point, latter with 2 rows of black hairs on outside of frontal setae; parafacial bare, about 2/3 as wide as 1st flagellomere in lateral view; facial ridge with strong setae on lower 3/4 or more; face concave; gena about 0.33 times as wide as eye height, lower margin of face not protruding forward; occiput with 2 – 3 rows of black hairs below postocular seta row; lower occiput bulged. Inner vertical seta nearly as long as eye height, about 1.7 – 2.0 times as long as ocellar seta, outer vertical seta slender, hair-like; 7 inclinate frontal setae, lowest seta nearly level with apex of pedicel, upper ones about as long as ocellar seta; ocellar seta reclinate, situate behind anterior ocellus; postocellar seta 0.5 times as long as ocellar seta; vibrissa strong, inserted at lower margin of face; 3 – 4 genal setae developed below vibrissa. Antenna broad, falling short of lower margin of face about length of pedicel, 1st flagellomere 3.5 – 4.0 times as long as wide, about 7 times as long as pedicel; arista bare, about as long as antenna. Palpus about 0.5 – 0.6 times as long as 1st flagellomere; prementum broad, 1.5 – 2.0 times as long as wide; proboscis large.

Thorax. Black in ground color, with gray pruinosity and 4 brown-black longitudinal vittae on presutural and 5 black vittae on postsutural dorsum, outer vitta widened posteriorly, about twice as wide as inner vitta, an inner vitta 1/2 as wide as pruinose portion between inner and outer vittae on presutural scutum, scutellum and pleura black, with grayish pruinosity. 2 presutural and 2 postsutural acrostichal setae; 3 postsutural intra-alar setae; 3 supra-alar setae, anterior and posterior one fine ad short; 3 katepisternal setae; anepimeron without setae; ketepimeron and mediotergite bare. Wing. Brownish, hyaline; tinged with brown along crossveins r-m and m-cu; costal spine slightly longer than crossvein r-m; relative lengths of 2nd, 3rd and 4th costal sectors approximately 2:7:3; vein M from dm-cu crossvein to its bend 2.0 – 2.2 times distance between bend and wing margin, bending without appendix like blunt angle. Halter reddish yellow on basal half and brown



Figs 8 – 14. *Campylocheta maculosa* sp. nov., ♂. 8 – 9. Male in dorsal and lateral view. 10. Head in lateral view. 11 – 12. Epandrium, cerci and surstyli in dorsal and lateral views. 13. Aedeagal apodeme, ejaculatory apodeme, hypandrium, pregonite, postgonite, basiphallus, distiphallus in lateral view. 14. Sternite 5 in ventral view. Scale bars = 0.25 mm.

at apex. Calypters yellowish, lower calypter broad, its inner margin adjacent to scutellum. Legs. Dark brown on femora and tibiae, tibiae reddish yellow except for darkened base; claws and pulvilli of fore leg about as

long as 5th tarsomere; fore tibia with 2 posterior setae; mid femur with a row of anteroventral and posterovenital setae on basal half, an anterior seta on middle; mid tibia with 1 anterodorsal, 2 – 3

posteroventral, 1 ventral setae; hind tibia with a row of irregular anterodorsal setae, 2–3 of them stronger, 2–3 posteroventral and 2 fine ventral setae, 3 strong and subequally long preapical dorsal setae.

Abdomen. Long ovate, black, covered with grayish white pruinoity on dorsum, with a narrow black median longitudinal vitta, and dark brown posterior margins of tergites. Abdominal syntergite 1+2 mid-dorsally excavate or near to posterior margin, with 1 laterodiscal, 2 lateral marginal setae; tergite 3 with 1 pair of median discal and median marginal, 1 lateral discal and 2 lateral marginal setae; tergite 4 with 1 pairs of median discal, 1 lateral discal and a row of marginal setae; tergite 5 separately with a row of discal and marginal setae. Sternite 1 with pale hairs. Male terminalia. Sternite 5 strongly reduced, wide and short, middle part distinctly protruding dorsally, lateral lobe bluntly round apically in ventral view. Epandrium large, cerci slender, separated and pointed apically, surstyli slender and narrowed apically in posterior view; cerci narrow and bent ventrally, surstyli broad and only narrowed apically in lateral view; basiphallus short, with broad dorsal process, angulated with distiphallus by membrane; distiphallus long, divided into subequal basal and apical portions by membrane; aedeagal apodeme elongate; basiliform sclerite connecting base of surstyli with dorsal portion of hypandrial arm; and hypandrium short, its dorsal arm broadly separated; pregonite plates fused dorsally with each other forming a long tube, its apex with a round protruding ventrally; postgonite short and bent laterally, slightly longer than wide, with a apical hook dorsally.

Female. Unknown.

Holotype male, China, Hubo, 1100 m, Caohezhang, Benxi (41.3°N, 124.1°E), Liaoning, 29 Apr. 2004 (SNU). Paratypes: 3 males, same data as holotype (SNU).

Etymology. The specific epithet refers to the character of this species, wing tinged with brown along crossveins r-m and m-cu, “maculosus” from Latin.

Distribution. China (Liaoning).

Remarks. This species is similar to *C. dentifera* Richter, but differs from the latter in having 7 inclinate frontal setae, 1st flagellomere about 7 times as long as pedicel, 2 presutural acrostichal setae, 3 katepisternal setae, mid and hind tibiae reddish yellow except for darkened base, abdominal tergites 3 and 4 each with 1 distinct lateral discal seta. And new species is also similar to *C. bicoloripes* Mesnil, but differs from it in having narrower frons, claw of fore leg about as long as 5th tarsomere in male.

2.3.3 *Campylocheta abdominalis* Shima, 1985 New record to China

Campylocheta abdominalis Shima, 1985: 110. Richter, 2004: 359 (key).

Diagnosis. Gena 2/5–1/2 of eye height; 2 katepisternal setae; mediotergite bare; wing markedly tinged with brown along crossveins; tibiae reddish yellow, mid tibia with 1 strong and 1 fine anterodorsal setae; hind tibia with 3 preapical dorsal setae, posteroventral seta at most 1/2 as long as others; abdominal syntergite 1+2 mid-dorsally excavate to posterior margin.

Specimens examined. China, 1 male, Beiling Park, Shenyang, Liaoning, 19 May 2006, YANG Zheng-Qing; 2 males, 3 females, Sitaizi, Fengcheng, Liaoning, May–July 2009, by DONG Xu-Guo (SNU).

Distribution. China (Liaoning); Japan (Honshu, Hokkaido, Kyushu).

2.3.4 *Campylocheta bisetosa* Shima, 1985 New record to China

Campylocheta bisetosa Shima, 1985: 115. Ziegler & Shima, 1996: 430 (note); Richter, 2004: 359 (key).

Diagnosis. Frons of male 0.27–0.33 of head width; parafacial about 0.7 of 1st flagellomere width in lateral view; gena about 1/2 of eye height; 1st flagellomere about 7 times as long as pedicel; 3 katepisternal setae; mediotergite hairy; wing markedly tinged with brown along crossveins; mid tibia with 2–3 anterodorsal setae; hind tibia with 2 preapical dorsal setae; abdominal syntergite 1+2 mid-dorsally excavate to posterior margin.

Specimens examined. China, Liaoning, 4 males, 1 female, Hubo, 1100 m, Caohezhang, Benxi, 29 Apr. 2004; 1 male, Mt. Weilian, Benxi, 20 Apr. 1978, XUE Wan-Qi; 1 female, Caohekou, Benxi, 26 May 1980, XUE Wan-Qi; 1 female, Laotudingzi, 650–1300 m, Huanren, 31 May 2006, LIU Jia-Yu; 3 females, Dongling Park, Shenyang, 13 June 2006, ZHANG Chun-Tian, LIU Jia-Yu; 1 female, Mt. Qipan, Shenyang, 29 Apr. 2008, XUE Wan-Qi; 2 females, Wenquansi, 340–430 m, Benxi, 1 May 2008, YAO Zhi-Yuan; Mt. Dahei, Jianchang, 1 female, 3 June 2007, ZHANG Chun-Tian; 2 females, 27 May 2008, LIU Jia-Yu (SNU).

Distribution. China (Liaoning); Japan (Honshu, Hokkaido, Tsushima), Russia (Ussuria of Far East).

2.3.5 *Campylocheta fuscinervis* (Stein, 1924)

Campylocheta fuscinervis (Stein, 1924): 105. Mesnil, 1974: 1253 (misident. of *C. similis*); Herting, 1984: 148 (catalogue); Herting & Dely-Draskovits, 1993: 374 (catalogue); Tschorsnig & Herting, 1994: 82 (key); Chao et al., 1998: 2121 (key, misident.); Ziegler, 1996: 312 (lectotype designated, redescription). O'Hara, Shima & Zhang, 2009: 27 (catalogue).

Diagnosis. Frons of male 0.29–0.32 of head width; parafacial bare, 0.6–0.9 times as wide as 1st flagellomere in lateral view; 1st flagellomere 5.5–7.0 times as long as pedicel; 2 presutural and 2 postsutural acrostichal setae; 1 presutural and 3 postsutural intra-

alar setae; 3 katepisternal setae; tibiae reddish yellow, mid tibia with 2–4 anterodorsal setae; hind tibia with 3 preapical dorsal setae; wing distinctly tinged with brown along crossveins r-m and m-cu; tergite 3 with a pair of discal and 1 laterodiscal setae.

Distribution. China (Beijing); Europe.

2.3.6 *Campylocheta hirticeps* Shima, 1985 New record to China

Campylocheta hirticeps Shima, 1985: 116. Ziegler & Shima, 1996: 430 (note); Shima, 1999: 65 (host); Richter, 2004: 359 (key).

Diagnosis. Gena about 1/2 of eye height; parafacial hairy on upper 1/3–1/2; arista thickened on basal 1/2–3/5; wing not markedly tinged with brown along crossveins; mid tibia with 2 anterodorsal setae; hind tibia with 3 preapical dorsal setae; abdominal syntergite 1+2 mid-dorsally excavate at most to posterior 1/4.

Specimens examined. China, 1 male, Hongshanling, Benxi, Liaoning, 20 Apr. 1978, XUE Wan-Qi (SNU).

Distribution. China (Liaoning); Japan (Honshu, Hokkaido, Tsushima), Russia (Ussuria of Far East).

2.3.7 *Campylocheta magnicauda* Shima, 1988

Campylocheta magnicauda Shima, 1988: 21. O'Hara, Shima & Zhang, 2009: 27 (catalogue).

Diagnosis. Vertex 0.39–0.42 of head width; male with 2 proclinate orbital setae.

Distribution. China (Taiwan).

2.3.8 *Campylocheta malaisei* (Mesnil, 1953)

Campylocheta malaisei (Mesnil, 1953): 146. Mesnil, 1974: 1252 (key). Chao et al., 1998: 2121 (key); O'Hara, Shima & Zhang, 2009: 27 (catalogue).

Elpe malaisei; Crosskey, 1976: 187 (catalogue, as comb.).

Diagnosis. Body length 8.0 mm. Frons of male about 0.23 of head width; 3 presutural and 2 postsutural acrostichal setae; wing distinctly tinged with brown along crossveins r-m and m-cu; tibiae reddish yellow, mid tibia with 1 anterodorsal seta; abdominal tergite 3 without median discal setae.

Distribution. China (Beijing, Yunnan); Myanmar.

Acknowledgements We are grateful to XUE Wan-Qi (Shenyang Normal University, Shenyang), LIU Jia-Yu (Nankai University, Tianjin), YAO Zhi-Yuan (Institute of Zoology, Chinese Academy of Sciences, Beijing) and other collectors, for loans of valuable specimens, we thank H. Shima (Kyushu University Museum, Kyushu University, Fukuoka, Japan), J. O'Hara (Invertebrate Biodiversity, Agriculture & Agri-Food Canada, Ottawa), J. Ziegler (Humboldt Universität zu Berlin, Museum für Naturkunde) and H. P. Tschorasnig (Staatliches Museum für Naturkunde, Stuttgart), for loans of valuable literature.

REFERENCES

- Arnaud, P. H. and Jr. 1978. A host-parasite catalog of North American Tachinidae (Diptera). *United States Department of Agriculture, Miscellaneous Publication*, 1319: 860.
- Chao, C-M et al. 1998. Tachinidae. In: Xue, W-Q and Chao, C-M (eds.), *Fleas of China*. Vol. 2. Liaoning Science and Technology Press, Shenyang. 17 pp. + pp. 1661–2206 + pls. 1–30.
- Crosskey, R. W. 1976. A taxonomic conspectus of the Tachinidae (Diptera) of the Oriental Region. *Bulletin of the British Museum (Natural History). Entomology*, 26 (Suppl.): 357.
- Dear, J. P. and Crosskey, R. W. 1982. A taxonomic review of the Tachinidae (Insecta, Diptera) of the Philippines. *Scotstrupia*, 8: 105–155.
- Herting, B. 1960. Biologie der westpaläarktischen Raupenfliegen. Dipt., Tachinidae. *Monographien zur Angewandte Entomologie*, 16: 1–188.
- Herting, B. 1984. Catalogue of Palearctic Tachinidae (Diptera). *Stuttgarter Beiträge zur Naturkunde, Serie A (Biologie)*, 369: 1–228.
- Herting, B. and Dely-Draskovits, Á. 1993. Family Tachinidae. In: Sós, Á. and Papp, L. (eds.), *Catalogue of Palearctic Diptera*. Vol. 13. Anthomyiidae-Tachinidae. Hungarian Natural History Museum, Budapest. pp. 118–458.
- McAlpine, J. F. 1981. Morphology and terminology-adults. In: McAlpine J. F., Peterson, B. V., Shewell, G. E., Teskey, H. J., Vockeroth, J. R. and Wood, D. M. (eds.), *Manual of Nearctic Diptera*, Biosystematics Research Institute, Ottawa, Ontario, 1: 9–63.
- Mesnil, L. P. 1974. Larvaevorinae (Tachininae). Lindner, E. (ed.), *Die Fliegen der Paläarktischen Region*. 10 (Lieferung 304). 1233–1304.
- O'Hara, J. E. and Wood, D. M. 2004. Catalogue of the Tachinidae (Diptera) of America North of Mexico. *Memoirs on Entomology, International*, 18: 410.
- O'Hara, J. E., Shima, H. and Zhang, G-T 2009. Annotated Catalogue of the Tachinidae (Insecta: Diptera) of China. *Zootaxa*, 2190: 1–236.
- O'Hara, J. E. 2010. World genera of the Tachinidae (Diptera) and their regional occurrence. Version 5.0. 1–74. http://www.nadsciaptera.org/Tach/Genera/Gentach_ver5.pdf
- Richter, V. A. 1981. New species of tachinid genus *Campylocheta* Rd. (Diptera, Tachinidae) from Kuril Islands. *Trudy Zoologicheskii Instituta, Akademia Nauka SSSR*, 92: 136–138.
- Richter, V. A. 2004. Fam. Tachinidae-tachinids. In: Sidorenko, V. S. (ed.), Key to the insects of Russian Far East. Vol. VI. Diptera and Siphonaptera. Part 3. Dal'nauka, Vladivostok. pp. 148–398.
- Shima, H. 1985. The genus *Campylocheta* (Diptera, Tachinidae) from Japan. *Systematic Entomology*, 10: 105–121.
- Shima, H. 1988. Some remarkable new species of Tachinidae (Diptera) from Japan and the Indo-Australian Region. *Bulletin of the Kitakyushu Museum of Natural History*, 8: 1–37.
- Shima, H. 1999. Host-parasite catalog of Japanese Tachinidae (Diptera). *Makunagi/Acta Dipterologica*, 1 (Suppl.): 108.
- Sinclair, B. J. 2000. 1. 2. Morphology and terminology of Diptera male terminalia. In: Papp, L. and Darvas, B. (eds.), *Contribution to a Manual of Palearctic Diptera (with special reference to flies of economic importance)*. Vol. 1. General and Applied Dipterology. Science Herald, Budapest. 53–74.
- Tschorsnig, H. P. and Herting, B. 1994. The Tachinids (Diptera: Tachinidae) of Central Europe; Identification Keys for Species and Data on Distribution and Ecology. *Stuttgarter Beir. Naturk. Serie A (Biologie)*, 506: 1–167.
- Tschorsnig, H. P. and Richter, V. A. 1998. Family Tachinidae. In: Papp, L. and Darvas, B. (eds.), *Contributions to a Manual of Palearctic Diptera (with special reference to flies of economic importance)*. Vol. 3. Higher Brachycera. Science Herald, Budapest. pp. 691–827.
- Ziegler, J. 1996. *Campylocheta fuscimervis auctorum*—ein Artenkomplex

(Diptera, Tachinidae). *Studia Dipterologica*, 3: 311–322.
Ziegler, J. and Shima, H. 1996. Tachinid flies of the Ussuri area

(Diptera: Tachinidae). *Beiträge zur Entomologie*, 46: 379–478.

中国噪寄蝇属二新种及三新纪录种（双翅目，寄蝇科）

张春田^{*} 周媛烨

沈阳师范大学辽宁省生物进化与生物多样性重点实验室 沈阳 110034

摘要 噪寄蝇属 *Campylocheta* 隶属于双翅目寄蝇科长足寄蝇亚科 Dexiinae 噪寄蝇族 Campylochetini, 其幼虫一般寄生于鳞翅目夜蛾科和尺蛾科的幼虫; 世界性分布。本属区别于其它近缘属的特征为: 复眼具黄色密长毛; 颜堤在下 2/3 或更多部分具鬃; 单眼鬃发达, 通常后倾; 触角第 3 节长于第 2 节 3 倍以上, 触角芒裸, 在基部 1/5~1/2 变粗; 前胸前侧片具密的淡色毛; 背中鬃 3+3; 小盾端鬃强, 交叉后伸; 翅肩鳞黑色; 前缘基鳞红黄色; 腹部第 1+2 合背板无中缘鬃。本研究的腹噪寄蝇 *C. abdominalis*、双鬃噪寄蝇 *C. bisetosa* 和毛颜噪寄蝇 *C. hirticeps* 为中国新纪录分布; 褐脉噪寄蝇 *C. fuscinervis*、马来噪寄蝇 *C. malaisei* 和巨尾噪寄蝇 *C. magnicauda* 为中国分布已知种; 编制了中国本属 8 个种的检索表。首次描述了产自我国的 2 新种; 新种模式标本及其它研究标本均保存于沈阳师范大学昆虫标本馆 (SNU)。

宽额噪寄蝇, 新种 *Campylocheta latifrons* sp. nov. (图 1~7)

本种外形近似灰噪寄蝇 *C. grisea*, 但区别于后者, 额较宽, 额鬃 5~6 根, 长为单眼鬃的 1.3~1.5 倍, 胸具黄灰色

关键词 寄蝇科, 噪寄蝇属, 新种, 新纪录, 中国。

中图分类号 Q969.453.5

粉被和 4 棕黑色纵条, 前中鬃 3 对, 腹部第 1+2 合背板中央凹陷几乎伸达后缘。

正模 ♂, 宁夏泾源六盘山和尚铺林场, 2 100~2 300 m, 2008-06-23, 刘家宇采; 副模: 4 ♀ ♀, 采集地同正模, 2008-06-24, 刘家宇、姚志远采; 1 ♂, 宁夏泾源六盘山秋千架林场, 1 800 m, 2008-07-04, 刘家宇采; 3 ♀ ♀, 宁夏泾源六盘山红峡林场, 2 100 m, 2008-07-14, 刘家宇采。

词源: 本种学名来源于头部的外形特点, 额较宽。

斑噪寄蝇, 新种 *Campylocheta maculosa* sp. nov. (图 8~14)

本种外形近似于齿噪寄蝇 *C. dentifera*, 但区别于后者有 7 根额鬃, 第 1 触角节长是第 2 节的 7 倍, 前中鬃 2 对, 腹侧片鬃 3 根, 中后足胫节除基部暗色外均红黄色; 腹部第 3、4 背板均具 1 明显的侧心鬃。

正模 ♂, 副模 3 ♂ ♂, 2004-04-29, 均采自辽宁本溪草河掌胡堡。

词源: 本种学名来源于翅横脉 1 个形态特点, 沿 r-m 和 m-cu 横脉具有棕色的暗晕斑。

* 通讯作者, E-mail: chuantianzhang@yahoo.cn